



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/587,586	07/28/2006	Yoav Levy	2008_0020	9679

513 7590 03/01/2010  
WENDEROTH, LIND & PONACK, L.L.P.  
1030 15th Street, N.W.,  
Suite 400 East  
Washington, DC 20005-1503

EXAMINER
----------

ALEXANDER, LYLE

ART UNIT	PAPER NUMBER
----------	--------------

1797

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

03/01/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ddalecki@wenderoth.com  
coa@wenderoth.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/587,586	<b>Applicant(s)</b> LEVY ET AL.	
	<b>Examiner</b> LYLE A. ALEXANDER	<b>Art Unit</b> 1797	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 9-12 and 17-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 13-16, 20 and 21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                                       |                                                                                         |
|-----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                           | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.                                                |

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4,13-14 and 20 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Tatezono et al. (USP 5,376,511).

Tatezono et al. teach in columns 3-4 lines 38-10 teach a photochromatic material made of diarylethene derivative which have been read on the claimed “diarylethene compound”. Tatezono et al. teach in claim 3 teaches the claimed substituted group “2,3-bis(2,4,5-trimethylthiophene-3-yl) maleic anhydride” on the diarylethene compound.

3. Claims 1-2,5-8,13-16 and 20-21 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Byker et al. (USP 6,084,702).

Byker teaches a thermochromatic device for controlling the amount of radiation entering a rooms. Column 9 lines 5+ teach the claimed spiroacromatic compounds.

4. Claims 1-2,5-8,13-16 and 20-21 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Bloch-Caude.

The changes in the extinction coeff. accompanying the establishment of equil. between the colored (open) and colorless (closed) forms (e.g. W and X

Art Unit: 1797

resp.) of numerous thermochromic heterocyclic spirans were measured spectrophotometrically, and the rate consts. of "opening" and "closing" were calculated. The taught spiroaromatic compound are:

IT 1498-88-0P, Spiro[2H-1-benzopyran-2,2'-indoline],

1',3',3'-trimethyl-6-nitro- 20200-74-2P,

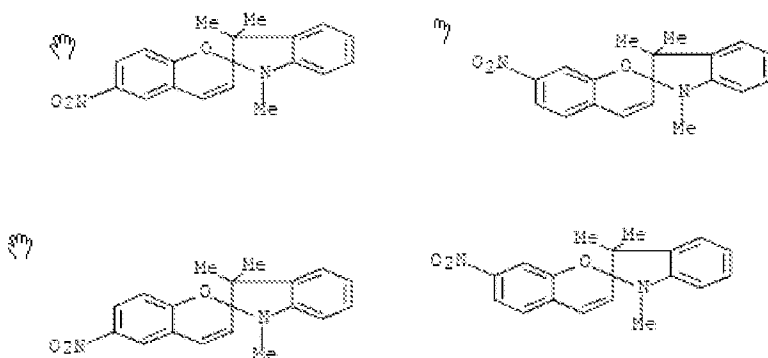
Spiro[2H-1-benzopyran-2,2'-indoline], 1',3',3'-trimethyl-7-nitro-

38582-27-3P, Spiro[2H-1-benzopyran-2,2'-indoline],

1',3',3'-trimethyl-6-nitro-, perchlorate 860712-68-1P,

Spiro[2H-1-benzopyran-2,2'-indoline], 1',3',3'-trimethyl-7-nitro-,

perchlorate which have been read on the claimed compounds.



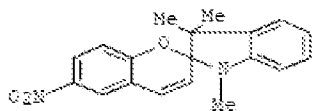
5. Claims 1-2,5-8,13-16 and 20-21 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Ignacio et al.

Ignacio et al. teach a spiroaromatic compound that is can be used as a temperature sensor having a dynamic response of the thermochromic material both to temp. and to light radiation, exhibiting high repeatability. Also it is possible to store the max. achieved temp. values.

Art Unit: 1797

CN Spiro[2H-1-benzopyran-2,2'-[2H]indole],

1',3'-dihydro-1',3',3'-trimethyl-6-nitro- (CA INDEX NAME)



Any inquiry concerning this communication or earlier communications from the examiner should be directed to LYLE A. ALEXANDER whose telephone number is (571)272-1254. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/LYLE A ALEXANDER/  
Primary Examiner, Art Unit 1797

Application/Control Number: 10/587,586  
Art Unit: 1797

Page 5